

- X. *Descriptions and life-histories of new species of Rhopalocera from the Western Pacific.* By GERVASE F. MATHEW, Staff-Paymaster, R.N., F.L.S., F.Z.S., &c.

[Read March 6th, 1889.]

*Melanitis ponapensis*, n. s.

*Male and female:* *Upper side* dull sepia-brown; *primaries* slightly paler on the costa, and with a darker blotch towards the end of cell and at apex; a black ocellus inwardly bordered with fuscous, and with a small white pupil between second discoidal and second median nervules near the apex; above this, between first and second discoidal nervules, a linear black dash outwardly enclosing an oval white spot much larger than the pupil of ocellus; *secondaries*, a small ocellus at anal angle between first and second median nervules, and sometimes a very minute ocellus between second and third median nervules. *Under side* umber-brown, inclining to fuscous, and more or less mottled or irrorated with darker lines; *fore wings*, a broad transverse reddish-brown fascia from beyond middle nearly to inner margin; apical region somewhat paler; four ocelli, the fourth between second discoidal and second median nervules the largest, the others, two of which are near the apex, very small; *secondaries*, basal half the darkest and outwardly bordered by a reddish-brown fascia from middle of costa to inner margin; five ocelli, those between first and second subcostal nervules and first and second median nervules the largest, the one at anal angle the smallest. The under sides vary considerably. Exp. 54 mm.

*Hab.* Port Metalanim, Ponapè, Caroline Islands.

*Obs.* This, although probably only a small local race of *M. leda*, appears to differ so much in various particulars as to entitle it to a specific name.

*Lampides phaseli*, n. s.

*Male:* *Upper side* dull violet-blue suffused with brown, with rather broad brown hind marginal borders; *secondaries*, some indistinct blackish lunules in marginal border. *Under side* light brown;

*primaries*, two white lines at end of cell, beyond which are two waved transverse white lines, followed by a row of indistinct submarginal lunules; *secondaries* crossed by a series of waved white lines, and a series of submarginal brownish lunules encircled with white; a small orange dot at anal angle, preceded by a large black spot inwardly margined with orange.

*Female*: *Upper side* brown; *primaries*, a pale blue triangular blotch at basal lower half entering cell, extending to inner margin, and subdivided by nervures; *secondaries*, a narrow dark brown hind marginal line, preceded by a submarginal row of indistinct lunules inwardly bordered by blue; *under side* same as male, but paler. Exp. 28 to 31 mm.

*Hab.* Claremont Islands, N.E. coast of Queensland.

These little butterflies were very numerous and very active, flying with great rapidity among the flowers of a leguminous plant, allied to our common garden scarlet-runner, which was climbing in masses over bushes and on the rough ground, and in the flower-buds of which I discovered their larvæ.

The full-grown larva is onisciform, short and plump, and of a clear rosy brown colour; head very small, pale straw-yellow, and retractile within second segment; segmental divisions well-defined; a few scattered umber-brown blotches upon dorsal area of first four segments, and one or two upon the remaining segments; second segment blackish anteriorly, which makes the larva appear as if it was withdrawing its head into a black collar; indistinct dorsal and subdorsal stripes; ventral area with a central bluish green stripe.

Larva a quarter grown pale greenish, with indistinct dorsal and spiracular stripes, and clothed with fine pale-coloured hairs, especially upon the posterior segments.

#### *Lycæna lulu*, n. s.

*Male*: *Upper side* dull purplish blue; *primaries*, hind marginal border rather broad, dark brown, broader at apex; *secondaries*, costa and hind marginal border dark brown.

*Female*: *Upper side* ashy brown; *primaries*, a somewhat triangular-shaped blotch composed of bright metallic-blue atoms on disc, extending sometimes into lower part of cell and subdivided by the nervules; *secondaries* dusted with blue atoms at base and on inner margin. *Under side*: Both sexes ashy grey, a very narrow dark brown hind marginal line, and a submarginal series

of indistinct pale lunules, the one preceding that at anal angle of secondaries sometimes having a black spot in its centre. Fringes pale grey. Exp. 22 to 24 mm.

This little butterfly was very common at Tongatabu, and it also occurred at Fiji, Samoa, and the New Hebrides; and I have a worn specimen from Cooktown, Queensland, which I believe is referable to the same species.

I obtained the first larvæ by beating. The butterflies were very local, and only to be found in the neighbourhood of certain papilionaceous shrubs. I afterwards discovered that the larvæ were easy to find by simply examining the clusters of flower-buds at the extremity of a branch, for wherever there was a larva, there were sure to be half-a-dozen or more red ants crawling over it, and thus betraying its position. Moreover, the larvæ took no pains to conceal themselves, but fed quite exposed among the buds. They were also accompanied by numbers of small black aphides.

The full-grown larva is from 12 to 14 mm. long, onisciform, not much thickened in the middle, but almost of uniform stoutness throughout, is slightly pubescent, and has a few short scattered bristles; head very small, retractile, pinkish brown, with a dark V-shaped mark on face and black ocelli; segmental divisions finely though clearly defined; the colour varies from pale pea-green to a warm pinkish green; a conspicuous purple dorsal stripe bordered on each segment by crescent-shaped purple marks, which are broadly margined below with whitish yellow, forming a pattern down the back; spiracular line pale yellowish pink, bordered above and below with purple; space between the dorsal and spiracular lines slashed with short obscure purple stripes; ventral area and claspers paler; whole surface more or less irrorated with minute black and white dots, scarcely visible to the naked eye; legs very small, pale pinkish green. Upon each side of the anterior part of the thirteenth segment, a little above the spiracular line, there is a small whitish tubercle, from which the larva can at pleasure emit a short fleshy tentacle, which is crowned at its summit by a fascicle, or whorl, of fine white bristles. The larvæ would not protrude this organ when they were breathed upon, touched, or otherwise annoyed, but only occasionally as

they crawled along, or when they were feeding with their heads deeply buried in the flower-buds. While so engaged they shot them out frequently and rapidly. The fascicle of bristles was not expanded until the tentacle was extended to its entire length, and was closed again before it was withdrawn. This organ is possibly a protective weapon against ichneumons, but I do not remember having previously observed it in any other *Lycæna* larva.

The chrysalis is 8 mm. long, rather stumpy and obese, covered with a fine short pubescence, of a light pinkish buff colour tinged with green, and mottled all over with dots and small blotches of dark brown. It is attached to a leaf or among the flower-heads of its food-plant. At first it very much resembles the larva, so much so that one can hardly believe that any change has taken place. A short time before the butterfly emerges it becomes of a deep lead-colour. I bred about fifty butterflies.

*Obs.* This species is rather sluggish in its habits, so "lulu," which is the native word for an owl, seems rather an appropriate name for it.

#### *Papilio megasthenes*, n. s.

*Female*: *Upper side* deep olive-brown; *primaries*, base dusted with fine yellowish atoms; a marginal band of seven round pale yellow spots, their edges rather clouded; a large lunular-shaped spot at upper end of cell, and a square-shaped spot on costa towards apex, both bordered above by yellow; a somewhat oval-shaped spot outside lower upper end of cell, followed by a broad transverse band to inner margin, and across secondaries nearly to anal angle; all spots and band a beautiful bluish green; *secondaries*, band white on the costa; a marginal row of indistinct spots composed of yellowish atoms; inner margin and base thickly clothed with fine brownish hairs. *Under side*: *Primaries*, spots paler, the one towards apex greenish yellow; the three marginal spots at the apex almost obsolete, and in a patch of silvery pinkish atoms, the remaining four much larger than upon upper side, and in the form of lunules. *Secondaries*, the blue-green band bordered outwardly by an interrupted dark reddish-brown fascia, which terminates at the anal angle; beyond this some silvery grey to apex and upper third of hind margin; lower portion of hind margin dark reddish brown; inner margin clothed with fine light

brown hairs; all the nervures near base of wings and legs green; palpi densely hairy. Exp. 61 mm.

*Hab.* Noumea, New Caledonia.

*Obs.* Near *P. gelon*, but the transverse band is much wider, and the spots are larger.

*Papilio Tryoni*, n. s.

*Male*: *Upper side* black; *primaries* with a marginal band of five creamy-white spots between the nervules, the one at the anal angle being much the largest, the others gradually decreasing in size towards the apex; *secondaries* not tailed, scalloped; a broad outwardly dentate pale greenish white band across the disc, its inner margin slightly impinging on lower part of cell, and its upper portion occupying the space between the costa and the subcostal nervure nearly to base; a marginal row of five creamy-yellow spots, the one at the anal angle the largest, the others small and clouded with black atoms. *Under side* black; *secondaries*, a marginal band of seven somewhat square-shaped spots between the nervures, the three nearest the apex the smallest; above these a row of ill-defined lunules composed of pale bluish atoms, those towards the apex being almost obsolete. Exp. 145 mm.

*Hab.* Ugi, Solomon Islands.

*Obs.* This fine species, which I have named after Admiral Sir George Tryon, K.C.B., lately Commander-in-Chief of the Australian Station, is closely allied to *Papilio Bridgei*, Math., from Treasury Island, but may at once be distinguished by its greater size and the disposition of the spots in the marginal bands.